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=> file medline caplus scisearch biosis  
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FILE 'BIOSIS' ENTERED AT 13:50:21 ON 22 MAR 2004  
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=> s immunoglobulin(s)protection(s)factor or fcrp  
L1 110 IMMUNOGLOBULIN(S) PROTECTION(S) FACTOR OR FCRP

=> s (chimeric or chimera or fusion)(s)(antibody or antibodies or immunoglobulin?)  
L2 43808 (CHIMERIC OR CHIMERA OR FUSION)(S)(ANTIBODY OR ANTIBODIES OR IMMUNOGLOBULIN?)

=> s l1(p)l2  
L3 9 L1(P) L2

=> dup rem l3  
PROCESSING COMPLETED FOR L3  
L4 9 DUP REM L3 (0 DUPLICATES REMOVED)

=> d ibib abs 1-9

L4 ANSWER 1 OF 9 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN

ACCESSION NUMBER: 2002:613006 SCISEARCH

THE GENUINE ARTICLE: 574VC

TITLE: Immunization with a polyprotein vaccine consisting of the T-cell antigens thiol-specific antioxidant, Leishmania major stress-inducible protein 1, and Leishmania elongation initiation factor protects against leishmaniasis

AUTHOR: Coler R N (Reprint); Skeiky Y A W; Bernards K; Greeson K; Carter D; Cornellison C D; Modabber F; Campos-Neto A; Reed S G

CORPORATE SOURCE: Infect Dis Res Inst, 1124 Columbia St, Suite 600, Seattle, WA 98104 USA (Reprint); Infect Dis Res Inst, Seattle, WA 98104 USA; Corixa Corp, Seattle, WA 98104 USA

COUNTRY OF AUTHOR: USA

SOURCE: INFECTION AND IMMUNITY, (AUG 2002) Vol. 70, No. 8, pp. 4215-4225.

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NEWS 2 "Ask CAS" for self-help around the clock  
NEWS 3 SEP 09 CA/Caplus records now contain indexing from 1907 to the  
present  
NEWS 4 DEC 08 INPADOC: Legal Status data reloaded  
NEWS 5 SEP 29 DISSABS now available on STN  
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NEWS 9 NOV 24 MSDS-CCOHS file reloaded  
NEWS 10 DEC 08 CABA reloaded with left truncation  
NEWS 11 DEC 08 IMS file names changed  
NEWS 12 DEC 09 Experimental property data collected by CAS now available  
in REGISTRY  
NEWS 13 DEC 09 STN Entry Date available for display in REGISTRY and CA/Caplus  
NEWS 14 DEC 17 DGENE: Two new display fields added  
NEWS 15 DEC 18 BIOTECHNO no longer updated  
NEWS 16 DEC 19 CROPU no longer updated; subscriber discount no longer  
available  
NEWS 17 DEC 22 Additional INPI reactions and pre-1907 documents added to CAS  
databases  
NEWS 18 DEC 22 IFIPAT/IFIUDB/IFICDB reloaded with new data and search fields  
NEWS 19 DEC 22 ABI-INFORM now available on STN  
NEWS 20 JAN 27 Source of Registration (SR) information in REGISTRY updated  
and searchable  
NEWS 21 JAN 27 A new search aid, the Company Name Thesaurus, available in  
CA/Caplus  
NEWS 22 FEB 05 German (DE) application and patent publication number format  
changes  
NEWS 23 MAR 03 MEDLINE and LMEDLINE reloaded  
NEWS 24 MAR 03 MEDLINE file segment of TOXCENTER reloaded  
NEWS 25 MAR 03 FRANCEPAT now available on STN  
  
NEWS EXPRESS MARCH 5 CURRENT WINDOWS VERSION IS V7.00A, CURRENT  
MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),  
AND CURRENT DISCOVER FILE IS DATED 3 MARCH 2004  
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specific topic.

Publisher: AMER SOC MICROBIOLOGY, 1752 N ST NW,  
WASHINGTON, DC 20036-2904 USA.  
ISSN: 0019-9567.

DOCUMENT TYPE: Article; Journal  
LANGUAGE: English  
REFERENCE COUNT: 51

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB Development of an effective vaccine against Leishmania infection is a priority of tropical disease research. We have recently demonstrated **protection** against Leishmania major in the murine and nonhuman primate models with individual or combinations of purified leishmanial recombinant antigens delivered as plasmid DNA constructs or formulated with recombinant interleukin-12 (IL-12) as adjuvant. In the present study, we immunized BALB/c mice with a recombinant polyprotein comprising a tandem **fusion** of the leishmanial antigens thiol-specific antioxidant, L. major stress-inducible protein 1 (LmST11), and Leishmania elongation initiation **factor** (LeIF) delivered with adjuvants suitable for human use. Aspects of the safety, immunogenicity, and vaccine efficacy of formulations with each individual component, as well as the polypeptide referred to as Leish-111f, were assessed by using the L. major challenge model with BALB/c mice. No adverse reactions were observed when three subcutaneous injections of the Leish-111f polyprotein formulated with either MPL-squalene (SE) or Ribi 529-SE were given to BALB/c mice. A predominant Th1 immune response characterized by in vitro lymphocyte proliferation, gamma interferon production, and **immunoglobulin G2A antibodies** was observed with little, if any, IL-4. Moreover, Leish-111f formulated with MPL-SE conferred immunity to leishmaniasis for at least 3 months. These data demonstrate success at designing and developing a prophylactic leishmaniasis vaccine that proved effective in a preclinical model using multiple leishmanial antigens produced as a single protein delivered with a powerful Th1 adjuvant suitable for human use.

L4 ANSWER 2 OF 9 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN

ACCESSION NUMBER: 2002:337829 SCISEARCH

THE GENUINE ARTICLE: 540RR

TITLE: Prime-boost vaccines encoding an intracellular idotype/GM-CSF fusion protein induce protective cell-mediated immunity in murine pre-B cell leukemia

AUTHOR: Pasquini S (Reprint); Peralta S; Missiaglia E; Carta L; Lemoine N R

CORPORATE SOURCE: Univ London Imperial Coll Sci Technol & Med, Sch Med, Hammersmith Hosp, Imperial Canc Res Fund, Mol Oncol Unit, London W12 0HS, England (Reprint); Wistar Inst Anat & Biol, Philadelphia, PA 19104 USA

COUNTRY OF AUTHOR: England; USA

SOURCE: GENE THERAPY, (APR 2002) Vol. 9, No. 8, pp. 503-510.  
Publisher: NATURE PUBLISHING GROUP, MACMILLAN BUILDING, 4 CRINAN ST, LONDON N1 9XW, ENGLAND.  
ISSN: 0969-7128.

DOCUMENT TYPE: Article; Journal  
LANGUAGE: English  
REFERENCE COUNT: 33

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB Two vaccines against an intracellularly expressed B cell idotype were assessed for their ability to induce protective immunity in mice against challenge with a pre-B cell leukemia. One vaccine was based on a plasmid expression vector and the other was a recombinant vaccinia virus; both vaccines expressed a polypeptide derived from the complementarity-determining regions (CDR2-CDR3) of the leukemic clone-specific **immunoglobulin heavy chain (IgH)**, as a **fusion** product

with mouse granulocyte-macrophage colony-stimulating **factor** (mGM-CSF). Mice inoculated with either vaccine showed significantly higher survival rates than controls after challenge with leukemia cells. However, **protection** from tumor challenge was optimal when the DNA vaccine was used for priming, followed by a booster immunization with the vaccinia virus recombinant. This vaccination protocol induced resistance not only to the first tumor challenge given shortly afterwards, but also to a second challenge given months later. Both CD4+ and CD8+ T cells contributed to **protection** in vaccinated mice. These data suggest that such a vaccine regimen might reduce the incidence of recurrence in patients with minimal residual disease after conventional therapy.

L4 ANSWER 3 OF 9 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN

ACCESSION NUMBER: 2002:19753 SCISEARCH

THE GENUINE ARTICLE: 504FX

TITLE: Bacterial lipoprotein-based vaccines induce tumor necrosis factor-dependent type 1 protective immunity against *Leishmania major*

AUTHOR: Cote-Sierra J; Bredan A; Toldos C M; Stijlemans B; Brys L; Cornelis P; Segovia M; de Baetselier P; Revets H (Reprint)

CORPORATE SOURCE: Free Univ Brussels, Flanders Interuniv Inst Biotechnol, Dept Immunol Parasitol & Ultrastruct, Paardenstr 65, B-1640 Rhode St Genese, Belgium (Reprint); Free Univ Brussels, Flanders Interuniv Inst Biotechnol, Dept Immunol Parasitol & Ultrastruct, B-1640 Rhode St Genese, Belgium; Univ Murcia, Fac Med, Dept Genet & Microbiol, Murcia, Spain

COUNTRY OF AUTHOR: Belgium; Spain

SOURCE: INFECTION AND IMMUNITY, (JAN 2002) Vol. 70, No. 1, pp. 240-248.

Publisher: AMER SOC MICROBIOLOGY, 1752 N ST NW, WASHINGTON, DC 20036-2904 USA.

ISSN: 0019-9567.

DOCUMENT TYPE: Article; Journal

LANGUAGE: English

REFERENCE COUNT: 47

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB Immunity against *Leishmania major* requires rapid induction of a type 1 immune response in which tumor necrosis **factor** alpha (TNF- $\alpha$ ) plays an essential role. Hence, vaccination strategies that simulate the protective immune response found in hosts that have recovered from natural infection provide a rational approach to combat leishmaniasis. One method for optimizing the qualitative and quantitative immune responses after vaccination is to use an adjuvant. In this study we demonstrate that the OprI lipoprotein (L-OprI) from *Pseudomonas aeruginosa* induces a long-term cellular (gamma interferon [IFN- $\gamma$ ]) and humoral ( **immunoglobulin** G2a) type 1 immune response against a truncated 32-kDa version (COOHgp63) of the 63-kDa major cell surface glycoprotein gp63. By contrast, immunization with COOHgp63 either fused to OprI nonlipoprotein or with no adjuvant did not result in the induction of type 1 immune responses. The adjuvanticity of L-OprI is strongly dependent on its capacity to induce TNF- $\alpha$ , since generation of type I immune responses is clearly delayed and impaired in TNF- $\alpha$  (-/-) mice. Vaccination with L-OprICOOHgp63 **fusion** protein protected BALB/c mice against *L. major* infection for at least 19 weeks. Vaccinated mice were largely free of lesions or clearly controlled lesion size on termination of the experiment. The control of disease progression in mice vaccinated with L-OprICOOHgp63 was associated with enhancement of antigen-specific IFN- $\gamma$  production. These data indicate that bacterial lipoproteins constitute appropriate adjuvants to include in vaccines against diseases in which type 1 immune responses are important for

**protection.**

L4 ANSWER 4 OF 9 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN  
ACCESSION NUMBER: 2002:529225 SCISEARCH  
THE GENUINE ARTICLE: 565MG  
TITLE: Molecular cloning, expression and partial characterization of Xksy, Xenopus member of the Sky family of receptor tyrosine kinases  
AUTHOR: Kishi Y A; Funakoshi H; Matsumoto K; Nakamura T (Reprint)  
CORPORATE SOURCE: Osaka Univ, Grad Sch Med, Course Adv Med, Div Mol Regenerat Med, 2-2 Yamadaoka, Suita, Osaka 5650871, Japan (Reprint); Osaka Univ, Grad Sch Med, Course Adv Med, Div Mol Regenerat Med, Suita, Osaka 5650871, Japan  
COUNTRY OF AUTHOR: Japan  
SOURCE: GENE, (17 APR 2002) Vol. 288, No. 1-2, pp. 29-40. Publisher: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS. ISSN: 0378-1119.  
DOCUMENT TYPE: Article; Journal  
LANGUAGE: English  
REFERENCE COUNT: 38

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB We isolated a cDNA encoding the Xenopus member of Sky/Axl/Mer receptor tyrosine kinase family (referred as Sky family), termed Xksy. The predicted Xksy protein has conserved structural characteristics of the Sky family: an unique extracellular domain of two **immunoglobulin** (Ig)-like repeats, two fibronectin type III (FNIII)-like repeats and an intracellular tyrosine kinase. Homology analysis of Xksy showed the highest identity to mammalian Sky protein. In contrast to the predominant expression of sky mRNA in the adult mammalian nervous system, Northern blot analysis showed ubiquitous expression of a single 5.2-kb Xksy mRNA in tissues of the adult Xenopus. RNase **protection** assays revealed that, during development, Xksy mRNA is expressed from mid neurulation stage. Levels increase through the tadpole stage and become restricted to the head region in embryos by stage 40. Whole-mount in situ hybridization analyses revealed that expression of Xksy is localized to the nervous system of the tadpole stage, including origins of sensory organs and branchial arches. When a **chimeric** receptor (EGFR-Xksy), composed of the extracellular region of epidermal growth **factor** (EGF) receptor and the transmembrane/ intracellular regions of Xksy, was expressed in a doxycycline repressive manner in HEK 293 cells, EGF-stimulus without doxycycline induced tyrosine phosphorylation of the **chimeric** receptor and evoke morphological changes. EGF treatment also induced growth modifications of EGFR-Xksy cells. And doxycycline pre-treatment eliminated these activities. These findings suggest that Xksy may play an important role in growth, differentiation and the accurate migration of cells during embryogenesis and early neural development. (C) 2002 Elsevier Science B.V. All rights reserved.

L4 ANSWER 5 OF 9 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN  
ACCESSION NUMBER: 2000:723483 SCISEARCH  
THE GENUINE ARTICLE: 355QE  
TITLE: Genetic immunization of BALB/c mice with a plasmid bearing the gene coding for a hybrid merozoite surface protein 1-hepatitis B virus surface protein fusion protects mice against lethal Plasmodium chabaudi chabaudi PC1 infection  
AUTHOR: Wunderlich G (Reprint); Moura I C; delPortillo H A  
CORPORATE SOURCE: UNIV SAO PAULO, INST CIENCIAS BIOMED 2, AVENIDA PROF LINEU PRESTES 1374, BR-05508900 SAO PAULO, BRAZIL (Reprint)  
COUNTRY OF AUTHOR: BRAZIL  
SOURCE: INFECTION AND IMMUNITY, (OCT 2000) Vol. 68, No. 10, pp.

5839-5845.

Publisher: AMER SOC MICROBIOLOGY, 1752 N ST NW,  
WASHINGTON, DC 20036-2904.

ISSN: 0019-9567.

DOCUMENT TYPE: Article; Journal  
FILE SEGMENT: LIFE  
LANGUAGE: English  
REFERENCE COUNT: 31

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB The genetic immunization of rodents with a plasmid coding for a Plasmodium chabaudi merozoite surface protein 1 (C terminus)-hepatitis B virus surface **fusion** protein (pPcMSP1(19)-HBs) provided **protection** of mice against subsequent lethal challenge with P. chabaudi chabaudi PCI-infected red blood cells. The percentage of survivor mice was higher in DNA-immunized mice than in animals immunized with a recombinant rPcMSP1(19)-glutathione S-transferase **fusion** protein administered in Freund adjuvant. In all mice immunized with the pPcMSP1(19)-HBs, a Th1-specific response, including the production of anti-MSP1(19)-specific **immunoglobulins** predominantly of the **immunoglobulin** G2a subtype and reacting almost exclusively against discontinuous epitopes, was elicited. The coinjection of Th1-type cytokine-expressing plasmids (gamma interferon, interleukin-2, and granulocyte-macrophage colony-stimulating **factor**) mostly abolished **protection** and boosting of MSP1(19)-specific **antibodies**. The inclusion of a lymph node-targeting signal did not significantly increase **protection**. These data provide further evidence that MSP1(19)-HBs DNA constructs might be useful as components of a genetic vaccine against the asexual blood stages of Plasmodium.

L4 ANSWER 6 OF 9 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN

ACCESSION NUMBER: 97:703252 SCISEARCH

THE GENUINE ARTICLE: XW396

TITLE: Modulation of keratinocyte growth factor receptor expression in human cultured keratinocytes

AUTHOR: Marchese C; Sorice M; DeStefano C; Frati L; Torrisi M R  
(Reprint)

CORPORATE SOURCE: UNIV ROMA LA SAPIENZA, DIPARTIMENTO SPERIMENTALE & PATOL,  
VIALE REGINA ELENA 324, I-00161 ROME, ITALY (Reprint);  
UNIV ROMA LA SAPIENZA, DIPARTIMENTO SPERIMENTALE & PATOL,  
I-00161 ROME, ITALY; IST NAZL RIC CANC, SEZ BIOTECNOL,  
ROME, ITALY; OSPED PEDIAT BAMBINO GESU, IRCCS,  
DIPARTIMENTO CHIRURG PLAST, ROME, ITALY; IST NEUROL  
MEDITERRANEO NEUROMED, POZZILLI, ITALY

COUNTRY OF AUTHOR: ITALY

SOURCE: CELL GROWTH & DIFFERENTIATION, (SEP 1997) Vol. 8, No. 9,  
pp. 989-997.  
Publisher: AMER ASSOC CANCER RESEARCH, PUBLIC LEDGER BLDG,  
SUITE 816, 150 S. INDEPENDENCE MALL W., PHILADELPHIA, PA  
19106.

ISSN: 1044-9523.

DOCUMENT TYPE: Article; Journal  
FILE SEGMENT: LIFE  
LANGUAGE: English  
REFERENCE COUNT: 33

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB Keratinocyte growth **factor** (KGF) belongs to the fibroblast growth **factor** (FGF) family, and its activity seems to be restricted to epithelial cells. It elicits its biological effects through binding to the KGF receptor (KGFR), a splicing transcript variant of FGF receptor 2 (FGFR2). The presence of multiple isoforms of FGFR2 and the overlapping specificities of the FGFs with respect to their receptors do

not allow the use of anti-FGFR **antibodies** as specific immunocytochemical tools. Here we used a **chimeric** protein recently obtained by the **fusion** of KGF to the HFc portion of **immunoglobulin** G (La Rochelle et al, J. Cell Biol., 129: 357-366, 1995) to analyze the expression and distribution of KGFRs in human keratinocytes cultured in chemically defined medium and incubated with different Ca<sup>2+</sup> concentrations to modulate their differentiation. We observed at both immunofluorescence and electron microscopic levels and by Western blot analysis of proliferation (K6) or differentiation (K1) markers that KGFR expression is up-modulated during keratinocyte differentiation. Cytofluorimetric and Western blot analysis revealed that exposure to the high Ca<sup>2+</sup> differentiation signal resulted in a significant increase in KGFRs. RNase **protection** assay using a KGFR-specific cDNA probe demonstrated that this effect was correlated with a >4-fold increase in KGFR transcript level. Our results suggest that the expression of KGFR, unlike that of the epidermal growth **factor** receptor, may control the proliferative-differentiative program from basal to suprabasal cells in human skin.

L4 ANSWER 7 OF 9 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN  
 ACCESSION NUMBER: 94:610350 SCISEARCH  
 THE GENUINE ARTICLE: PH298  
 TITLE: PASSIVE-IMMUNITY TO YERSINIAE MEDIATED BY ANTI-RECOMBINANT V-ANTIGEN AND PROTEIN A-V-ANTIGEN FUSION PEPTIDE  
 AUTHOR: MOTIN V L; NAKAJIMA R; SMIRNOV G B; BRUBAKER R R (Reprint)  
 CORPORATE SOURCE: MICHIGAN STATE UNIV, DEPT MICROBIOL, E LANSING, MI, 48824 (Reprint); MICHIGAN STATE UNIV, DEPT MICROBIOL, E LANSING, MI, 48824; NF GAMALEI INST EPIDEMIOLOG & MICROBIOL, MOSCOW 123098, RUSSIA  
 COUNTRY OF AUTHOR: USA; RUSSIA  
 SOURCE: INFECTION AND IMMUNITY, (OCT 1994) Vol. 62, No. 10, pp. 4192-4201.  
 ISSN: 0019-9567.  
 DOCUMENT TYPE: Article; Journal  
 FILE SEGMENT: LIFE  
 LANGUAGE: ENGLISH  
 REFERENCE COUNT: 68

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB LcrV (V antigen), a known unstable 37.3-kDa monomeric peptide encoded on the ca. 70-kb Lcr plasmid of *Yersinia pestis*, *Yersinia pseudotuberculosis*, and *Yersinia enterocolitica*, has been implicated as a regulator of the low-calcium response, virulence **factor**, and protective antigen. In this study, lcrV of *Y. pestis* was cloned into protease-deficient *Escherichia coli* BL21. The resulting recombinant V antigen underwent marked degradation from the C-terminal end during purification, yielding major peptides of 36, 35, 34, and 32 to 29 kDa. Rabbit gamma globulin raised against this mixture of cleavage products provided significant **protection** against 10 minimum lethal doses of *Y. pestis* ( $P < 0.01$ ) and *Y. pseudotuberculosis* ( $P < 0.02$ ). To both stabilize V antigen and facilitate its purification, plasmid pPAV13 was constructed so as to encode a **fusion** of lcrV and the structural gene for protein A (i.e., all but the first 67 N-terminal amino acids of V antigen plus the signal sequence and **immunoglobulin** G-binding domains but not the cell wall-associated region of protein A). The resulting **fusion** peptide, termed PAV, could be purified to homogeneity in one step by **immunoglobulin** G affinity chromatography and was stable thereafter. Rabbit polyclonal gamma globulin directed against PAV provided excellent passive immunity against 10 minimum lethal doses of *Y. pestis* ( $P < 0.005$ ) and *Y. pseudotuberculosis* ( $P < 0.005$ ) but was ineffective against *Y. enterocolitica*. **Protection** failed after absorption with excess PAV, cloned whole V antigen, or a

large (31.5-kDa) truncated derivative of the latter but was retained ( $P < 0.005$ ) upon similar absorption with a smaller (19.3-kDa) truncated variant, indicating that at least one protective epitope resides internally between amino acids 168 and 275.

L4 ANSWER 8 OF 9 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN  
 ACCESSION NUMBER: 94:761895 SCISEARCH  
 THE GENUINE ARTICLE: PU361  
 TITLE: PROTECTIVE EFFECT OF 55-KD BUT NOT 75-KD SOLUBLE  
 TUMOR-NECROSIS-FACTOR RECEPTOR IMMUNOGLOBULIN-G FUSION  
 PROTEINS IN AN ANIMAL-MODEL OF GRAM-NEGATIVE SEPSIS  
 AUTHOR: EVANS T J; MOYES D; CARPENTER A; MARTIN R; LOETSCHER H;  
 LESSLAUER W; COHEN J (Reprint)  
 CORPORATE SOURCE: ROYAL POSTGRAD MED SCH, DEPT INFECT DIS & BACTERIOL, DU  
 CANE RD, LONDON W12 0NN, ENGLAND (Reprint); ROYAL POSTGRAD  
 MED SCH, DEPT INFECT DIS & BACTERIOL, LONDON W12 0NN,  
 ENGLAND; F HOFFMANN LA ROCHE & CO LTD, CH-4002 BASEL,  
 SWITZERLAND  
 COUNTRY OF AUTHOR: ENGLAND; SWITZERLAND  
 SOURCE: JOURNAL OF EXPERIMENTAL MEDICINE, (01 DEC 1994) Vol. 180,  
 No. 6, pp. 2173-2179.  
 ISSN: 0022-1007.  
 DOCUMENT TYPE: Article; Journal  
 FILE SEGMENT: LIFE  
 LANGUAGE: ENGLISH  
 REFERENCE COUNT: 36

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB The aim of this study was to compare the ability of both a 55- and  
 75-kD soluble tumor necrosis **factor** receptor  
**immunoglobulin G fusion** protein (sTNFR-IgG) in  
 protecting against death in a murine model of gram-negative sepsis.  
 Pretreatment with 250  $\mu$ g of the p75 construct delayed but did not avert  
 death in this model, reducing peak bioactive TNF-alpha levels after  
 infection from 76.4 ng ml<sup>-1</sup> in control mice to 4.7 ng ml<sup>-1</sup> in the  
 treated group ( $p < 0.05$ : two-sample t test). However, these low levels of  
 bioactive TNF-alpha persisted in the p75 **fusion** protein-treated  
 animals compared with the controls and were sufficient to mediate delayed  
 death. In contrast, pretreatment with 200  $\mu$ g of the p55 sTNFR-IgG gave  
 excellent **protection** against death with complete neutralization  
 of circulating TNF. Studies of the binding of TNF-alpha with the soluble  
 TNFR **fusion** proteins showed that the p75 **fusion**  
 construct exchanges bound TNF-alpha about 50-100-fold faster than the p55  
**fusion** protein. Thus, although both **fusion** proteins in  
 equilibrium bind TNF-alpha with high affinity, the TNF-alpha p55  
**fusion** protein complex is kinetically more stable than the p75  
**fusion** construct, which thus acts as a TNF carrier. The persistent  
 release of TNF-alpha from the p75 **fusion** construct limits its  
 therapeutic effect in this model of sepsis.

L4 ANSWER 9 OF 9 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN  
 ACCESSION NUMBER: 91:314899 SCISEARCH  
 THE GENUINE ARTICLE: FP086  
 TITLE: A PROTEIN WITH A BINDING-SPECIFICITY SIMILAR TO NF-KAPPA-B  
 BINDS TO A STEROID-DEPENDENT REGULATORY ELEMENT IN THE  
 OVALBUMIN GENE  
 AUTHOR: SCHWEERS L A; SANDERS M M (Reprint)  
 CORPORATE SOURCE: UNIV MINNESOTA, DEPT BIOCHEM, MINNEAPOLIS, MN, 55455  
 COUNTRY OF AUTHOR: USA  
 SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (1991) Vol. 266, No. 16,  
 pp. 10490-10497.  
 DOCUMENT TYPE: Article; Journal



FILE SEGMENT: LIFE  
 LANGUAGE: ENGLISH  
 REFERENCE COUNT: 47

\*ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS\*

AB The chicken ovalbumin gene is regulated at the level of transcription by four classes of steroid hormones. A steroid-dependent regulatory element (SDRE) found from -900 to -732 is required for this steroid-mediated induction. To define more precisely sequences of the SDRE required for steroidal induction, a series of exonuclease III deletions were made in the 3' end of the SDRE. **Fusion** genes containing the mutant ovalbumin 5'-flanking sequences linked to the chloramphenicol acetyltransferase structural gene (CAT) were transfected into steroid-responsive primary oviduct cells. These functional studies defined a region of the SDRE from -793 to -759 that is essential for induction by steroids. Analysis of protein interactions in this 34-base pair region by copper-phenanthroline footprinting and methylation interference assays defined nucleotides required for protein binding. Footprinting showed **protection** of residues extending from -784 to -765, an area that included nucleotides that, when methylated, interfered with protein binding. In addition, this footprinted region contained 10 nucleotides that were identical to sequences contained in the beta-interferon gene regulatory element. An oligomer synthesized to this region of homology produced two DNA-protein complexes with oviduct nuclear proteins. Although this region of the interferon gene regulatory element binds the transcription **factor** NF-kappa-B, an oligomer from the **immunoglobulin** kappa-light chain gene known to bind NF-kappa-B did not compete with the SDRE oligomer for binding to oviduct nuclear proteins. Surprisingly, this same NF-kappa-B oligomer was able to restore steroid responsiveness to an SDRE mutant, while an oligomer from the **immunoglobulin** heavy chain gene inserted in the same position did not affect induction by steroids. These data suggest that a protein binding to sequences in the SDRE that are similar to an NF-kappa-B-binding site participates in the steroid-mediated increase in transcription of the chicken ovalbumin gene.

=> d his

(FILE 'HOME' ENTERED AT 13:50:07 ON 22 MAR 2004)

FILE 'MEDLINE, CAPLUS, SCISEARCH, BIOSIS' ENTERED AT 13:50:21 ON 22 MAR 2004

L1 110 S IMMUNOGLOBULIN(S) PROTECTION(S) FACTOR OR FCRP  
 L2 43808 S (CHIMERIC OR CHIMERA OR FUSION) (S) (ANTIBODY OR ANTIBODIES OR  
 L3 9 S L1(P) L2  
 L4 9 DUP REM L3 (0 DUPLICATES REMOVED)

=> s immunoglobulin(w)protection(w)factor or fcrp

L5 17 IMMUNOGLOBULIN(W) PROTECTION(W) FACTOR OR FCRP

=> s l3 and l5

L6 0 L3 AND L5

=> s (chimeric or chimera or fusion)(p)(antibody? or antibodies? or immunoglobulin?)

L7 66310 (CHIMERIC OR CHIMERA OR FUSION) (P) (ANTIBODY? OR ANTIBODIES? OR  
 IMMUNOGLOBULIN?)

=> s l7 and l5

L8 0 L7 AND L5

=> s (immunoglobulin?(w)protection?(w)factor?) or fcrp

09/256156 22/03/2004

L9 17 (IMMUNOGLOBULIN?(W) PROTECTION?(W) FACTOR?) OR FCRP

=> s l9 and l7

L10 0 L9 AND L7

=> file medline caplus scisearch biosis uspatfull pctfull

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	98.30	98.51

FILE 'MEDLINE' ENTERED AT 13:55:08 ON 22 MAR 2004

FILE 'CAPLUS' ENTERED AT 13:55:08 ON 22 MAR 2004

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FILE 'USPATFULL' ENTERED AT 13:55:08 ON 22 MAR 2004

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FILE 'PCTFULL' ENTERED AT 13:55:08 ON 22 MAR 2004

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=> s (immunoglobulin?(w)protection?(w)factor?) or fcrp

L11 147 (IMMUNOGLOBULIN?(W) PROTECTION?(W) FACTOR?) OR FCRP

=> s (chimeric or chimera or fusion)(p)(antibody? or antibodies? or immunoglobulin?)

L12 133192 (CHIMERIC OR CHIMERA OR FUSION)(P)(ANTIBODY? OR ANTIBODIES? OR IMMUNOGLOBULIN?)

=> s l11 and l12

L13 126 L11 AND L12

=> dup rem l13

PROCESSING COMPLETED FOR L13

L14 126 DUP REM L13 (0 DUPLICATES REMOVED)

=> s l11(p)l12

L15 76 L11(P) L12

=> dup rem l15

PROCESSING COMPLETED FOR L15

L16 76 DUP REM L15 (0 DUPLICATES REMOVED)

=> s (mutation or deletion or substitution)(s)fc

L17 5052 (MUTATION OR DELETION OR SUBSTITUTION)(S) FC

=> s l16 and l17

L18 9 L16 AND L17

=> d ibib abs 1-9

L18 ANSWER 1 OF 9 USPATFULL on STN

ACCESSION NUMBER: 2003:153626 USPATFULL

TITLE: ENHANCING THE CIRCULATING HALF LIFE OF ANTIBODY-BASED

FUSION PROTEINS  
 INVENTOR(S): GILLIES, STEPHEN, CARLISLE, MA, UNITED STATES  
 LO, KIN-MING, LEXINGTON, MA, UNITED STATES  
 LAN, YAN, BELMONT, MA, UNITED STATES  
 WESOLOWSKI, JOHN, WEYMOUTH, MA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003105294	A1	20030605
APPLICATION INFO.:	US 1999-256156	A1	19990224 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-75887P	19980225 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	TESTA, HURWITZ & THIBEAULT, LLP, HIGH STREET TOWER, 125 HIGH STREET, BOSTON, MA, 02110	
NUMBER OF CLAIMS:	26	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	7 Drawing Page(s)	
LINE COUNT:	1022	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed are methods for the genetic construction and expression of antibody-based fusion proteins with enhanced circulating half-lives. The fusion proteins of the present invention lack the ability to bind to immunoglobulin Fc receptors, either as a consequence of the antibody isotype used for fusion protein construction, or through directed mutagenesis of antibody isotypes that normally bind Fc receptors. The fusion proteins of the present invention may also contain a functional domain capable of binding an immunoglobulin protection receptor.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 2 OF 9 USPATFULL on STN  
 ACCESSION NUMBER: 2003:64303 USPATFULL  
 TITLE: Expression technology for proteins containing a hybrid isotype antibody moiety  
 INVENTOR(S): Gillies, Stephen D., Carlisle, MA, UNITED STATES  
 Way, Jeffrey, Cambridge, MA, UNITED STATES  
 Lo, King-Ming, Lexington, MA, UNITED STATES  
 PATENT ASSIGNEE(S): Lexigen Pharmaceuticals Corp., Lexington, MA (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003044423	A1	20030306
APPLICATION INFO.:	US 2002-93958	A1	20020307 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-274096P	20010307 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	TESTA, HURWITZ & THIBEAULT, LLP, HIGH STREET TOWER, 125 HIGH STREET, BOSTON, MA, 02110	
NUMBER OF CLAIMS:	28	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	4 Drawing Page(s)	
LINE COUNT:	2288	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed are methods and compositions for efficiently expressing antibody fusion proteins. Antibody fusion proteins of the invention include a hybrid antibody moiety containing sequences from more than one type of antibody and/or mutant antibody sequences. Hybrid antibody fusion proteins of the invention may be produced at high levels and may combine functional properties characteristic of different antibody types in addition to functional properties of a non-antibody moiety.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 3 OF 9 USPATFULL on STN

ACCESSION NUMBER: 2002:266428 USPATFULL  
 TITLE: Enhancing the circulating half-life of antibody-based fusion proteins  
 INVENTOR(S): Gillies, Stephen D., Carlisle, MA, UNITED STATES  
 Burger, Christa, Darmstadt, GERMANY, FEDERAL REPUBLIC OF  
 Lo, Kin-Ming, Lexington, MA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002147311	A1	20021010
APPLICATION INFO.:	US 2001-780668	A1	20010209 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-181768P	20000211 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	TESTA, HURWITZ & THIBEAULT, LLP, HIGH STREET TOWER, 125 HIGH STREET, BOSTON, MA, 02110	
NUMBER OF CLAIMS:	47	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	6 Drawing Page(s)	
LINE COUNT:	1491	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed are compositions and methods for enhancing the circulating half-life of antibody-based fusion proteins. Disclosed methods and compositions rely on altering the amino acid sequence of the junction region between the antibody moiety and the fused protein moiety in an antibody-based fusion protein. An antibody-based fusion protein with an altered amino acid sequence in the junction region has a greater circulating half-life when administered to a mammal. Disclosed methods and compositions are particularly useful for reducing tumor size and metastasis in a mammal.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 4 OF 9 PCTFULL COPYRIGHT 2004 Univentio on STN  
 ACCESSION NUMBER: 2002072605 PCTFULL ED 20020927 EW 200238  
 TITLE (ENGLISH): EXPRESSION TECHNOLOGY FOR PROTEINS CONTAINING A HYBRID ISOTYPE ANTIBODY MOIETY  
 TITLE (FRENCH): TECHNIQUE D'EXPRESSION POUR DES PROTEINES CONTENANT UN FRAGMENT D'ANTICORPS ISOTYPE CHIMERIQUE  
 INVENTOR(S): GILLIES, Stephen, D., 159 Sunset Road, Carlisle, Ma 01741, US;  
 WAY, Jeffrey, 108 Fayerweather Street, Cambridge, MA 02138, US  
 PATENT ASSIGNEE(S): LEXIGEN PHARMACEUTICALS CORP., 125 Hartwell Avenue, Lexington, MA 02173, US [US, US]  
 AGENT: WALLER, Patrick, R., H.\$, Testa, Hurwitz & Thibeault,

L.L.P., High Street Tower, 125 High Street, Boston, MA  
02110\$, US

LANGUAGE OF FILING: English  
LANGUAGE OF PUBL.: English  
DOCUMENT TYPE: Patent  
PATENT INFORMATION:

NUMBER	KIND	DATE
WO 2002072605	A2	20020919

## DESIGNATED STATES

W:

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR  
CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID  
IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD  
MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI  
SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

RW (ARIPO): GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW

RW (EAPO): AM AZ BY KG KZ MD RU TJ TM

RW (EPO): AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE  
TR

RW (OAPI): BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG

APPLICATION INFO.: WO 2002-US7011 A 20020307

PRIORITY INFO.: US 2001-60/274,096 20010307

ABEN Disclosed are methods and compositions for efficiently expressing antibody fusion proteins. Antibody fusion proteins of the invention include a hybrid antibody moiety containing sequences from more than one type of antibody and/or mutant antibody sequences. Hybrid antibody fusion proteins of the invention may be produced at high levels and may combine functional properties characteristic of different antibody types in addition to functional properties of a non-antibody moiety.

ABFR L'invention concerne des procedes et des compositions permettant d'exprimer efficacement des proteines hybrides d'anticorps. Les proteines hybrides d'anticorps de cette invention comprennent un fragment d'anticorps chimérique contenant des sequences de plus d'un type de sequences d'anticorps et/ou d'anticorps mutants. Les proteines hybrides d'anticorps chimérique de cette invention peuvent etre produites a des niveaux eleves et peuvent combiner des proprietes fonctionnelles caracteristiques de differents types d'anticorps a des proprietes fonctionnelles d'un fragment qui n'est pas d'un anticorps.

L18 ANSWER 5 OF 9 PCTFULL COPYRIGHT 2004 Univentio on STN

ACCESSION NUMBER: 2001058957 PCTFULL ED 20020827

TITLE (ENGLISH): ENHANCING THE CIRCULATING HALF-LIFE OF ANTIBODY-BASED FUSION PROTEINS

TITLE (FRENCH): AMELIORATION DE LA DEMI-VIE CIRCULANTE DE PROTEINES DE FUSION A BASE D'ANTICORPS

INVENTOR(S): GILLIES, Stephen, D.;

BURGER, Christa;

LO, Kin, Ming

PATENT ASSIGNEE(S): LEXIGEN PHARMACEUTICALS CORP.

DOCUMENT TYPE: Patent

PATENT INFORMATION:

NUMBER	KIND	DATE
WO 2001058957	A2	20010816

## DESIGNATED STATES

W:

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU  
CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN  
IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK  
MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM  
TR TT TZ UA UG UZ VN YU ZA ZW GH GM KE LS MW MZ SD SL  
SZ TZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE

DK ES FI FR GB GR IE IT LU MC NL PT SE TR BF BJ CF CG  
 CI CM GA GN GW ML MR NE SN TD TG

APPLICATION INFO.: WO 2001-US4455 A 20010209  
 PRIORITY INFO.: US 2000-60/181,768 20000211

ABEN Disclosed are compositions and methods for enhancing the circulating half-life of antibody-based fusion proteins. Disclosed methods and compositions rely on altering the amino acid sequence of the junction region between the antibody moiety and the fused protein moiety in an antibody-based fusion protein. An antibody-based fusion protein with an altered amino acid sequence in the junction region has a greater circulating half-life when administered to a mammal. Disclosed methods and compositions are particularly useful for reducing tumor size and metastasis in a mammal.

ABFR L'invention concerne des compositions et des methodes permettant d'ameliorer la demi-vie circulante de proteines de fusion a base d'anticorps. Ces methodes et ces compositions consistent a modifier la sequence d'acide amine de la region de jonction entre la fraction d'anticorps et la fraction de proteine fusionnee dans une proteine de fusion a base d'anticorps. Une proteine de fusion a base d'anticorps comportant une sequence d'acide amine modifiee dans sa region de jonction possede une demi-vie circulante plus longue lorsqu'elle administree a un mammifere. Ces methodes et ces compositions sont notamment utiles pour reduire la taille des tumeurs et les metastases chez un mammifere.

L18 ANSWER 6 OF 9 PCTFULL COPYRIGHT 2004 Univentio on STN  
 ACCESSION NUMBER: 2001021816 PCTFULL ED 20020820  
 TITLE (ENGLISH): MODULATION OF IgE RECEPTOR CELL SURFACE EXPRESSION  
 TITLE (FRENCH): PROCEDE DE MODULATION DE L'EXPRESSION DE LA SURFACE D'UNE CELLULE RECEPTRICE DE L'IMMUNOGLOBINE E

INVENTOR(S): KINET, Jean-Pierre;  
 DONNADIEU, Emmanuel;  
 JOUVIN, Marie-Helene;  
 COOKSON, William;  
 MOFFATT, Miriam, Fleur

PATENT ASSIGNEE(S): ISIS INNOVATION LIMITED;  
 BETH ISRAEL DEACONESS MEDICAL CENTER, INC.;  
 KINET, Jean-Pierre;  
 DONNADIEU, Emmanuel;  
 JOUVIN, Marie-Helene;  
 COOKSON, William;  
 MOFFATT, Miriam, Fleur

DOCUMENT TYPE: Patent

PATENT INFORMATION:

NUMBER	KIND	DATE
WO 2001021816	A1	20010329

## DESIGNATED STATES

W:

AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU  
 CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN  
 IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK  
 MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM  
 TR TT TZ UA UG US UZ VN YU ZA ZW GH GM KE LS MW MZ SD  
 SL SZ TZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY  
 DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG  
 CI CM GA GN GW ML MR NE SN TD TG

APPLICATION INFO.: WO 2000-US25877 A 20000921  
 PRIORITY INFO.: US 1999-60/154,924 19990921

ABEN The invention relates to methods and related compositions for modulating cell surface expression of the high affinity receptor for immunoglobulin E, the Fc $\frac{3}{4}$ RI receptor. The invention also relates to methods and

related compositions for the treatment and/or prevention of conditions mediated by IgE such as allergic conditions.

ABFR

L18 ANSWER 7 OF 9 PCTFULL COPYRIGHT 2004 Univentio on STN  
 ACCESSION NUMBER: 2000009560 PCTFULL ED 20020515  
 TITLE (ENGLISH): GENERATION OF MODIFIED MOLECULES WITH INCREASED SERUM  
 HALF-LIVES  
 TITLE (FRENCH): PRODUCTION DE MOLECULES MODIFIEES AVEC DEMI-VIE SERIQUE  
 PROLONGEE  
 INVENTOR(S): GALLO, Michael;  
 JUNGHANS, Richard;  
 FOORD, Orit  
 PATENT ASSIGNEE(S): ABGENIX, INC.  
 LANGUAGE OF PUBL.: English  
 DOCUMENT TYPE: Patent  
 PATENT INFORMATION:

NUMBER	KIND	DATE
WO 2000009560	A2	20000224

DESIGNATED STATES

W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE  
 DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE  
 KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO  
 NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ  
 VN YU ZA ZW GH GM KE LS MW SD SL SZ UG ZW AM AZ BY KG  
 KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT  
 LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN  
 TD TG

APPLICATION INFO.: WO 1999-US18777 A 19990817  
 PRIORITY INFO.: US 1998-60/096,868 19980817

ABEN In accordance with the present invention, there are provided methods for the extension of serum half-lives of proteinaceous molecules, particularly antibody molecules, and compositions of molecules modified in accordance with the methods of the invention. In accordance with a first aspect of the present invention, there is provided a method of modifying the half-life of an antibody through providing an antibody containing an FcRn binding domain or the genes encoding such antibody and physically linking the antibody or the antibody as encoded to a second FcRn binding domain. In accordance with a second aspect of the present invention, there is provided a molecule that contains at least two distinct FcRn binding moieties.

ABFR La presente invention concerne des procedes d'extension des demi-vies seriques de molecules proteiniqes, particulierement de molecules d'anticorps, cette invention concernant egalement des compositions de molecules modifiees selon les procedes de l'invention. Un premier aspect de l'invention concerne un procede de modification de la demi-vie d'un anticorps grace a un anticorps comprenant un domaine de liaison FcRn, ou aux genes codant un tel anticorps fixant physiquement cet anticorps ou l'anticorps ainsi code sur un second domaine de liaison FcRn. Un second aspect de l'invention concerne une molecule renfermant au moins deux fractions de liaison FcRn distinctes.

L18 ANSWER 8 OF 9 PCTFULL COPYRIGHT 2004 Univentio on STN  
 ACCESSION NUMBER: 1999043713 PCTFULL ED 20020515  
 TITLE (ENGLISH): ENHANCING THE CIRCULATING HALF-LIFE OF ANTIBODY-BASED  
 FUSION PROTEINS  
 TITLE (FRENCH): AMELIORATION DE LA DEMI-VIE CIRCULANTE DE PROTEINES  
 HYBRIDES A BASE D'ANTICORPS  
 INVENTOR(S): GILLIES, Stephen, D.;  
 LO, Kin-Ming;  
 LAN, Yan;  
 WESOLOWSKI, John  
 PATENT ASSIGNEE(S): LEXIGEN PHARMACEUTICALS CORPORATION  
 LANGUAGE OF PUBL.: English  
 DOCUMENT TYPE: Patent  
 PATENT INFORMATION:

NUMBER	KIND	DATE
WO 9943713	A1	19990902

## DESIGNATED STATES

W:

AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE  
 ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR  
 KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT  
 RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW  
 GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM  
 AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE  
 BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG

APPLICATION INFO.: WO 1999-US3966 A 19990224  
 PRIORITY INFO.: US 1998-60/075,887 19980225

ABEN Disclosed are methods for the genetic construction and expression of  
 antibody-based fusion  
 proteins with enhanced circulating half-lives. The fusion proteins of  
 the present invention lack the  
 ability to bind to immunoglobulin Fc receptors, either as a consequence  
 of the antibody isotype used  
 for fusion protein construction, or through directed mutagenesis of  
 antibody isotypes that normally  
 bind Fc receptors. The fusion proteins of the present invention may also  
 contain a functional domain  
 capable of binding an immunoglobulin protection receptor.

ABFR On decrit des procedes de construction genetique et d'expression de  
 proteines hybrides a base  
 d'anticorps ayant une demi-vie circulante amelioree. Les proteines  
 hybrides de l'invention sont  
 incapables de se lier aux recepteurs pour le fragment Fc des  
 immunoglobulines, soit en consequence  
 de l'utilisation de l'isotype des anticorps pour construire la proteine  
 hybride, soit par mutagenese  
 dirigee des isotypes des anticorps qui se lient normalement aux  
 recepteurs pour le fragment Fc. Les  
 proteines hybrides de l'invention peuvent egalement contenir un domaine  
 fonctionnel capable de lier  
 un recepteur de protection des immunoglobulines.

L18 ANSWER 9 OF 9 PCTFULL COPYRIGHT 2004 Univentio on STN  
 ACCESSION NUMBER: 1997043316 PCTFULL ED 20020514  
 TITLE (ENGLISH): PHYSIOLOGICALLY ACTIVE MOLECULES WITH EXTENDED  
 HALF-LIVES AND METHODS OF USING SAME  
 TITLE (FRENCH): MOLECULES PHYSIOLOGIQUEMENT ACTIVES A DEMI-VIES  
 PROLONGEES ET METHODE D'UTILISATION DE CES DERNIERES  
 INVENTOR(S): JUNGHANS, Richard, P.  
 PATENT ASSIGNEE(S): BETH ISRAEL DEACONESS MEDICAL CENTER, INC.  
 LANGUAGE OF PUBL.: English



DOCUMENT TYPE: Patent

## PATENT INFORMATION:

NUMBER KIND DATE

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WO 9743316 A1 19971120

## DESIGNATED STATES

W: CA JP AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT  
SE

APPLICATION INFO.: WO 1997-US7707 A 19970506

PRIORITY INFO.: US 1996-60/017,249 19960510

US 1997-8/841,815 19970505

ABEN The present invention is drawn to physiologically active molecules which have extended half-lives in the circulatory system of a subject, compositions which include these molecules, methods of producing the molecules, and methods of using the molecules to treat subjects. The half-lives of the physiologically active molecules are extended by modifying their structure such that they are capable of binding to the IgG protection receptor FcRp. By modifying the physiologically active molecules in this manner, the invention takes advantage of the discovery that the FcRp and the FcRn are the same receptor and that modifying physiologically active molecules such that they are capable of binding the IgG protection receptor FcRp allows these molecules to escape lysosomal catabolism and remain in the circulation of a subject for longer periods of time.

ABFR Molecules physiologiquement actives presentant une demi-vie prolongee dans le systeme circulatoire d'un sujet, compositions comprenant ces molecules, methodes de production de ces molecules et methodes d'utilisation de ces molecules a des fins therapeutiques. Les demi-vies de ces molecules physiologiquement actives sont prolongees par une modification de leur structure qui les rend capables de se fixer aux recepteurs FcRp protecteurs de l'IgG. En modifiant de cette maniere les molecules physiologiquement actives, on met a profit la decouverte du fait que le FcRp et le FcRn sont le meme recepteur et que la modification de ces molecules pour leur permettre de se fixer au recepteur de protection FcRp permet a ces molecules d'echapper au catabolisme lysosomal et de rester dans le systeme circulatoire d'un sujet pendant une plus longue duree.

=&gt; d his

(FILE 'HOME' ENTERED AT 13:50:07 ON 22 MAR 2004)

FILE 'MEDLINE, CAPLUS, SCISEARCH, BIOSIS' ENTERED AT 13:50:21 ON 22 MAR 2004

L1 110 S IMMUNOGLOBULIN(S) PROTECTION(S) FACTOR OR FCRP  
 L2 43808 S (CHIMERIC OR CHIMERA OR FUSION) (S) (ANTIBODY OR ANTIBODIES OR  
 L3 9 S L1(P) L2  
 L4 9 DUP REM L3 (0 DUPLICATES REMOVED)  
 L5 17 S IMMUNOGLOBULIN(W) PROTECTION(W) FACTOR OR FCRP  
 L6 0 S L3 AND L5

09/256156 22/03/2004

L7 66310 S (CHIMERIC OR CHIMERA OR FUSION) (P) (ANTIBODY? OR ANTIBODIES? O  
L8 0 S L7 AND L5  
L9 17 S (IMMUNOGLOBULIN? (W) PROTECTION? (W) FACTOR?) OR FCRP  
L10 0 S L9 AND L7

FILE 'MEDLINE, CAPLUS, SCISEARCH, BIOSIS, USPATFULL, PCTFULL' ENTERED AT  
13:55:08 ON 22 MAR 2004

L11 147 S (IMMUNOGLOBULIN? (W) PROTECTION? (W) FACTOR?) OR FCRP  
L12 133192 S (CHIMERIC OR CHIMERA OR FUSION) (P) (ANTIBODY? OR ANTIBODIES? O  
L13 126 S L11 AND L12  
L14 126 DUP REM L13 (0 DUPLICATES REMOVED)  
L15 76 S L11(P)L12  
L16 76 DUP REM L15 (0 DUPLICATES REMOVED)  
L17 5052 S (MUTATION OR DELETION OR SUBSTITUTION) (S) FC  
L18 9 S L16 AND L17

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---Logging off of STN---

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Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	44.51	143.02

STN INTERNATIONAL LOGOFF AT 13:58:29 ON 22 MAR 2004